

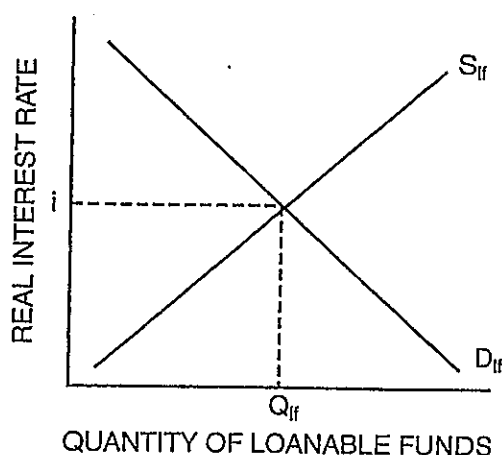
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The Loanable Funds Market

The loanable funds market is made up of borrowers, who demand funds (D_{lf}), and lenders, who supply funds (S_{lf}). The loanable funds market determines the real interest rate (the price of loans), as shown in Figure 4-5.1.



Figure 4-5.1
Market for Loanable Funds



Four groups demand and supply loanable funds: consumers, the government, foreigners, and businesses. The same four groups demand and supply loanable funds, so it is important to understand the economic behavior depicted by the demand and supply curves for loanable funds.

The demand curve for loanable funds is negatively sloped. More loans are demanded at lower real interest rates; and fewer loans are demanded when real interest rates are higher. Businesses, for example, will find more projects worthwhile to invest in at lower rates than at higher rates. Profits rise as interest rates fall. Businesses will therefore borrow more at lower rates to finance the increased business investment spending. Consumer and foreigner borrowing is also sensitive to changes in the interest rate. Consider that the monthly payments for a mortgage are higher with a higher real interest rate. As the rate rises, fewer consumers can afford the higher mortgage payments. Government borrowing is not very sensitive to the interest rate.


The upward slope of the supply of the loanable funds demonstrates the willingness of households to save. The opportunity cost of saving is spending now. The more income saved, the less can be spent now. The opportunity cost rises as more and more income is saved. Thus higher rates of interest are needed to compensate for the increasing opportunity cost of saving.

The equilibrium real interest rate is the rate at which the total amount savers are willing to lend equals the total amount borrowers are willing to borrow. The major determinants of the demand for loanable funds are business confidence and expectations, consumer confidence and expectations, government budget plans, and income levels.

For example, if businesses are confident of future profits, they will want to borrow more at all possible real interest rates to expand operations, and the D_{lf} curve shifts to the right. If the government decreases spending to reduce the deficit it decreases the need to borrow, and the D_{lf} curve shifts to the left. If consumers become concerned that the economy is heading toward a recession, they will become concerned about their ability to repay loans and will cut back on their borrowing, decreasing the demand for loanable funds. On the other hand, rising incomes would cause consumers to borrow more since their higher incomes enable them to pay back higher amounts.

On the supply side, if the government reduces the income tax rate on interest income, consumers will want to save more at every real interest rate, and the S_{lf} curve will shift to the right. Anything that causes consumers to save more will shift the S_{lf} curve to the right. The Federal Reserve plays a significant role on the supply side of the loanable funds market.

A good way to view the loanable funds market is to consider the bond market with an understanding that bonds are fixed-rate loans. Thus, anyone who buys a newly issued bond is loaning funds to the seller of the bond. The demand for loanable funds then is the same as the supply of bonds in the bond market, and the supply of loanable funds is the same as the demand for bonds in the bond market. Considering these relationships helps to understand that bond prices and interest rates are inversely related. For example, an increase in demand for loanable funds (increase in supply of bonds) raises interest rates in the loanable funds market (and decreases bond prices in the bond market).

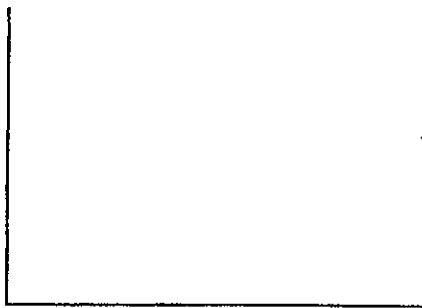
 **Student Alert:** Make sure you understand the differences (and similarities) between the money market and the loanable funds market and use the appropriate one! The slope of the supply curve is a key distinction!

1. Explain why the demand for loanable funds is negatively sloped. (Use the business borrower in your explanation.)
2. Explain why the supply of loanable funds is positively sloped. (Use household savers in your explanation.)
3. Is the interest rate in the loanable funds market nominal or real? Explain.

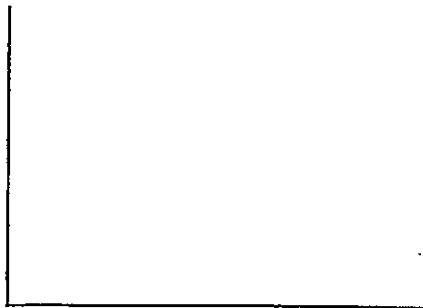
4. Draw a graph of the loanable funds market showing the effect of each of the following on the real interest rate and quantity of loanable funds.
- (A) The government increases spending *ceteris paribus*.



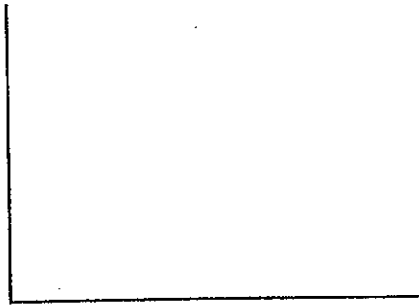
- (B) The government increases tax on income from interest payments.



- (C) The Federal Reserve buys bonds on the open market facilitating an increase of the money supply.



- (D) The University of Michigan releases the index of consumer and business confidence, which indicates both are lower.



- (E) Consumers in China decide to increase consumption.

